

ABSTRACT

Ceramic precursor powders are combined with a binder and pressed into blocks or similar shapes to form green bodies. The ceramic powders consist of fairly uniform particles thoroughly dispersed to be essentially free of agglomerates such that it will sinter predictably and isotropically without appreciable distortion. The green bodies may be soft-sintered to a bisque density less than about eighty five percent of the final density. The soft-sintered blocks are then milled to a desired shape and sintered to a final density rendering a high strength dental restorative material. The material may be aluminum oxide, partially stabilized zirconium oxide, mixtures of the two, mullite or any suitable oxide that may be sintered to high strength (i.e., greater than 250 MPa).